Application No.: 10/525,907
After Allowance Under 37 CFR § 1.312

Docket No. 13111-00005-US

AMENDMENTS TO THE CLAIMS

Listing of Claims:

- 1. (Previously presented) A method for the fermentative production of L-methionine, which comprises the following steps:
 - a) fermenting in a medium cells of a coryneform bacterium for producing Lmethionine, the coryneform bacteria expressing at least one heterologous
 nucleotide sequence which codes for a protein with methylenetetrahydrofolate
 reductase (metF) activity, wherein said heterologous nucleotide sequence
 comprises a nucleotide sequence encoding a metF protein having an amino acid
 sequence as set forth in SEQ ID NO: 2 or comprises a nucleotide sequence
 encoding a metF protein having an amino acid sequence with 95% homology or
 more to the sequence as set forth in SEQ ID NO: 2;
 - b) concentrating L-methionine in the medium or in the bacterial cells, and
 - c) isolating L-methionine.
- 2-4. (Cancelled).
- 5. (Previously presented) The method as claimed in claim 1, wherein the metF-encoding sequence comprises a coding sequence as set forth in SEQ ID NO:1.
- 6. (Previously presented) The method as claimed in claim 1, wherein the metF-encoding sequence codes for a protein with metF activity, said protein comprising an amino acid sequence as set forth in SEQ ID NO:2.
- 7. (Previously presented) The method as claimed in claim 1, wherein the coding metF sequence is a DNA or RNA which can be replicated in coryneform bacteria or is stably integrated into the chromosome.
- 8. (Previously presented) The method as claimed in claim 7, wherein

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- a) a bacteria strain transformed with a plasmid vector carrying at least one copy of the coding metF sequence under the control of regulatory sequences is used, or
- b) a strain in which the coding metF sequence has been integrated into the bacteria chromosome is used.
- 9. (Previously presented) The method as claimed in claim 1, wherein the coding metF sequence is overexpressed.
- 10. (Previously presented) The method as claimed in claim 1, wherein bacteria are fermented in which additionally at least one further gene of the biosynthetic pathway of L-methionine has been overexpressed.
- 11. (Cancelled).
- 12. (Currently amended) The method as claimed in claim 1, wherein coryneform bacteria are fermented in which, at the same time, at least one of the genes from among
- a) a lysC gene derived from G. glutamicum a coryneform bacterium, which encodes an aspartate kinase,
 - the glyceraldehyde-3-phosphate dehydrogenase-encoding gene gap.
- c) the 3-phosphoglycerate kinase-encoding gene pgk.
- d) the pyruvate carboxylase-encoding gene pyc,
- e) the triose phosphate isomerase-encoding gene tpi.
- f) the homoserine O-acetyltransferase-encoding gene metA,
- g) the cystathionine gamma-synthase-encoding gene metB,
 - h) the cystathionine gamma-lyase-encoding gene metC.
 - i) the serine hydroxymethyltransferase-encoding gene glyA.
 - i) the O-acetylhomoserine sulfhydrylaso-encoding gene metY.
 - k) the vitamin B12-dependent methionine synthase-encoding gene metH.
 - the phophoserine aminotransferase-encoding gene serC.
 - m) the phosphoserine phosphatase-encoding gene serB.
- n) the serine acetyltransferase-encoding gene cysE, or

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- o) the hom gene, which encodes a homoserine dehydrogenase,
 is overexpressed.
- 13. (Cancelled).
- 14. (Previously presented) The method as claimed in claim 1, wherein the coryneform bacterium is of the species Corynebacterium glutamicum.
- 15-16. (Cancelled).
- 17. (Currently amended) A method for the production of L-methionine, which comprises the following steps:
 - a) fermenting in a medium cells of a coryneform bacterium for producing of Lmethionine, said coryneform bacteria expressing at least one heterologous
 nucleotide sequence which codes for a protein with [[with]]
 methylenetetrahydrofolate reductase (metF) activity, wherein the heterologous
 nucleotide sequence comprises a nucleotide sequence having 95% identity or
 more to the sequence as set forth in SEQ ID NO: 1;
 - b) concentrating L-methionine in the medium or in the bacterial cells; and
 - c) isolating L-methionine.
- 18. (Previously presented) The method of claim 17, wherein the coding metF sequence is a DNA or RNA which can be replicated in coryneform bacteria or is stably integrated into the chromosome.
- 19. (Previously presented) The method of claim 17, wherein
 - a) a bacteria strain transformed with a plasmid vector carrying at least one copy of the coding metF sequence under the control of regulatory sequences is used, or
 - b) a strain in which the coding metF sequence has been integrated into the bacteria chromosome is used.

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20. (Previously presented) The method of claim 17, wherein the coding metF sequence is overexpressed.

- 21. (Previously presented) The method of claim 17, wherein bacteria are fermented in which additionally at least one further gene of the biosynthetic pathway of L-methionine has been overexpressed.
- 22. (Previously presented) The method of claim 17, wherein the coryneform bacterium is of the species Corynebacterium glutamicum.
- 23. (New) The method as claimed in claim 1, wherein coryneform bacteria are fermented in which, at the same time, a lysC gene derived from a coryneform bacterium, which encodes an aspartate kinase, is overexpressed.
- 24. (New) The method as claimed in claim 23, wherein the lysC gene is derived from C. glutamicum.